

The Weekly Petroleum Status Report (WPSR) provides timely information on the petroleum supply situation in the context of historical information, selected prices, and forecasts. The WPSR is intended to provide up-to-date information to the industry, the press, planners, policy-makers, consumers, analysts, and State and local governments. It is published each Friday by the Energy Information Administration. The data contained in this report are based on company submissions for the week ending 7 a.m. the preceding Friday.

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### Highlights

### Refinery Operations

Crude oil inputs to refineries averaged 11.8 million barrels per day for the four weeks ending January 21, 1983. Refinery capacity utilization averaged 69.3 percent during the period. During the four weeks ending January 21, 1983, motor gasoline production averaged 6.4 million barrels a day, and distillate fuel oil production averaged 2.5 million barrels a day.

### Stocks

On January 21, 1983, stocks of crude oil stood at 356.7 million barrels, which is about 3 percent below the level one year ago. Stocks of total motor gasoline, at 242.8 million barrels, were about 6 percent below the level one year ago. Distillate fuel oil stocks stood at 170.7 million barrels, which is about 3 percent below the level one year ago. Stocks of residual fuel oil stood at 62.1 million barrels, which is 13 percent below the level a year ago.

### **Imports**

Net imports of crude oil (including imports for the Strategic Petroleum Reserve) and petroleum products together averaged 3.1 million barrels a day for the four-weeks ending January 21, 1983, about 32 percent below their average a year ago. Gross imports of crude oil (excluding the Strategic Petroleum Reserve) averaged 2.7 million barrels a day for the four-week period ending January 21, 1983.

### **Products Supplied**

Total petroleum products supplied averaged 15.1 million barrels a day for the four-week period ending January 21, 1983, which is about 6 percent lower than during the comparable period last year. Motor gasoline was supplied at a rate of 6.2 million barrels a day, which is about 1 percent above the rate supplied a year ago. Distillate fuel oil was supplied at a rate of 3.0 million barrels a day, about 12 percent below the rate one year ago.

### World Crude Oil Price

The estimated weighted average international price of crude oil as of January 26, 1983 remains at \$33.00 a barrel.

### **Spot Market Product Prices**

For the week ending January 21, 1983, the average spot market price of 98 octane gasoline on the Rotter-dam market decreased \$1.17 to \$34.29 a barrel; the gasoil price decreased 47 cents to \$37.00 a barrel, and the price of residual fuel oil decreased 15 cents to \$26.58 a barrel. On the New York market, the average spot price of 89 octane regular gasoline increased \$1.47 to \$36.29 a barrel; the price of No. 2 heating oil increased \$1.16 to \$35.60 a barrel, and the residual fuel oil price increased 25 cents to \$26.00 a barrel.

	Four-Week A For Period 01/21/83		Percent Change	:		
Crude Oil Supply (1) Domestic Production (2) Net Imports (Including SPR) (3) Gross Imports (Excluding SPR) (4) SPR Imports (5) Exports (6) SPR Stocks Withdrawn (+) or Added (-) (7) Other Stocks Withdrawn (+) or Added (-) (8) Products Supplied and Losses (9) Unaccounted-for Crude	E8,641 2,554 2,683 141 E270 -150 87 E-53 707	8,645 3,563 3,519 169 224 -185 -148 -66	0.0 -28.3 -25.9  20.5 			
(10) Crude Oil Input to Refineries	11,785	11,841	-0.5			
Other Supply (11) NGL Production (12) Other Hydrocarbon Input and Alcohol Input (13) Crude Oil Product Supplied <sup>3</sup> (14) Processing Gain (15) Net Product Imports <sup>4</sup> (16) Gross Product Imports <sup>4</sup> (17) Product Exports (18) Product Stocks Withdrawn (+) or Added (~) <sup>5</sup>	E1,540 E67 E51 560 577 1,239 E662 518	1,560 41 63 503 1,065 1,620 556 1,019	-1.3 62.8 -19.0 11.3 -45.8 -23.6 19.2	1982 will U.S.Pet sufficier	e daily averages for be shown again in roleum Balance She it 1983 data are ave reasonable compar	the WPSR et when allable to
(19) Total Product Supplied for Domestic Use	15,097	16,092	-6.2			
Products Supplied (20) Motor Gasoline (21) Naphtha-type Jet Fuel (22) Kerosene-type Jet Fuel (23) Distillate Fuel Oil (24) Residual Fuel Oil (25) Other Oils (26) Total Products Supplied	6,217 188 863 2,957 1,572 3,301	6,137 163 833 3,346 2,141 3,471	1.3 15.1 3.5 -11.6 -26.6 -4.9			
Petroleum Stocks (Millions of Barrels)	01/21/	83 (	01/14/83	01/21/82	Percent Char Previous Week	ige from Year Ago
Crude Oil (Excluding SPR) <sup>7</sup> Total Motor Gasoline Finished Motor Gasoline Blending Components Naphtha-type Jet Fuel Kerosene-type Jet Fuel Distillate Fuel Oil Residual Fuel Oil Unfinished Oils Other Oils  Total Stocks (Excluding SPR) Crude Oil in SPR Total Stocks (Including SPR)	5 31 170	.8 .7 .0 .4 .9 .7 .1 .4 .7	R361.5 R242.6 R202.8 R39.8 5.7 R32.5 R175.1 R63.6 105.9 E157.3 R1,144.1 295.4 R1,439.6	368.3 258.8 210.3 48.5 6.9 31.7 175.0 71.7 114.8 208.3 1,235.4 233.5 1,469.0	-1.3 0.1 0.0 0.6 -5.4 -1.9 -2.5 -2.3 2.4 -1.6 -1.0 0.4 -0.7	-3.1 -6.2 -3.6 -17.5 -21.7 0.7 -2.5 -13.3 -5.5 -25.7 -8.3 27.0 -2.7

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R=ElA revision.
```

ExEstimates based on monthly data.

Includes lease condensate.

<sup>2</sup> Net Imports = Gross Imports (line 3) + SPR Imports (line 4) - Exports (line 5). In 1983 crude oil burned as fuel is treated as a product and a new category, crude oil product supplied, has been created. In prior years crude oil burned as fuel was treated as a transfer of crude oil to residual and distillate fuel oil product categories and was an element of the product supplied calculations of those products. Product supplied series for distillate and residual fuel oils for 1982, shown in the second column of the U.S. Petroleum Balance Sheet have been recalculated without these transfers. See Appendix D. Among the product supplied categories of the balance, crude oil product supplied is in-

cluded in other olls product supplied.
4 Includes unfinished oils and natural gas plant liquids for processing.
5 Includes an estimate of minor product stock change based on monthly data.

<sup>6</sup> Other oils product supplied reflects crude oil product supplied and the reduction for reclassified products.
7 Includes crude oil in transit to refineries.

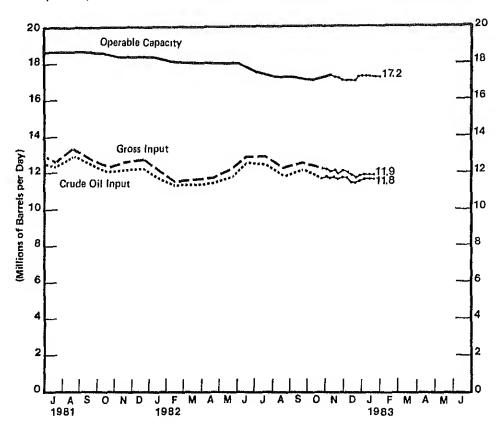
<sup>8</sup> Included are stocks of all other oils such as aviation gasoline, natural gas liquids (including ethane), kerosene, petrochemical feedstocks, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils. For the current two weeks, stocks of these minor products are estimated from monthly data. Sources:

<sup>1981:</sup> EIA, "Petroleum Supply Annual." 1982 Monthly Data: EIA, "Petroleum Supply Monthly."

<sup>• 1982-1983</sup> Four-Week Averages: Estimates based on EIA weekly data.

Note: Due to independent rounding, individual product detail may not add to total. The percentages shown are calculated using unrounded numbers.

# Refinery Inputs and Utilization (Millions of Barrels per Day)



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1981		***************************************	***************************************		····		<del>~</del>	<del>, ,</del>	, <u>.</u>	·	**************************************	
Crude Oil Input	13.2	12.9	12.4	12.1	12.3	12.4	12.3	12.9	12.5	12.1	12.2	12.3
Gross Inputs	13.5	13.2	12.6	12.3	12.6	12.7	12.6	13.2	12.7	12.4	12.6	12.7
Operable Capacity	18.6	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.6	18.4	18.4	18.4
Percentage Utilization1	72.5	70.8	67.7	65.7	67.2	68.1	67.4	70.6	68.4	67.0	68.2	69.2
1982												
Crude Oil Input	11.6	11.3	11.3	11.4	11.8	12.5	12.4	11.9	12.1	11.7		
Gross Inputs	12.0	11.6	11.7	11.8	12.2	12.9	12.9	12.3	12.5	12.2		
Operable Capacity	18.1	18.0	18.0	18.0	18.0	17.6	17.1	17.1	17.0	17.2		
Percentage Utilization 1	66.3	64.6	64.9	65.5	68.0	73.6	75.2	71.6	73.9	70.8		
Average for Four-Week Pa	riod Endi	ng:										
1982/1983	11/5	11/12	11/19	11/26	12/3	12/10	12/17	12/24	12/31	1/7	1/14	1/21
Crude Oil Input	11.8	11.7	11.8	11.7	11.8	11.8	11.6	11.6	11.7	11.8	11.8	11.8
Gross Inputs	12.1	12.0	12.1	11.9	12.1	12.0	11.9	11.8	11.9	11.9	R11.9	11.9
Operable Capacity	E17.1	E17.1	E17.0	E17.0	E17.0	E17.0	E17.2	E17.2	E17.2	E17.2	E17.2	E17.2
Percentage Utilization1	70.4	69.8	71.0	70.3	71.1	70.8	69.3	69.0	69.3	69.3	R69.2	69.3

R=EIA revision.

E=Estimate based on most recent monthly data

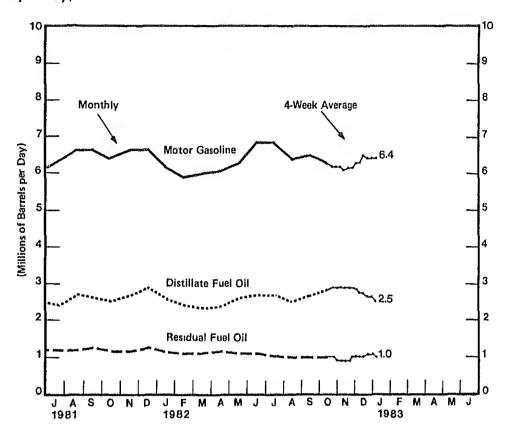
<sup>1</sup> Percentage utilization is calculated as gross inputs divided by operable capacity. See glossary Percentages are calculated using unrounded numbers.

Source: 

Monthly Data 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly."

Four-Week Averages. Estimates based on EIA weekly data

## U. S. Refinery Production by Product<sup>1</sup> (Millions of Barrels per Day)



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1981		***************************************					-					
Motor Gasoline	6.7	6.3	6.2	6.1	6.1	6.2	6.4	6.6	6.6	6.4	6.6	6.6
Jet Fuel	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1,0	0.9	0.9	1.0	0.9
Distillate Fuel Oil	3.0	2.8	2.5	2.4	2.5	2.5	2.4	2.7	2.6	2.5	2.7	2.9
Residual Fuel Oil	1.6	1.6	1.4	1.3	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.3
1982												
Motor Gasoline	6.2	5.9	6.0	6.1	6.3	6.8	6.8	6.4	6.5	6.3		
Jet Fuel	0.9	1.0	1.1	1.0	0.9	0.9	1.0	1.0	1.0	1.0		
Distillate Fuel Oil	2.6	2.4	2.3	2,4	2.6	2.7	2.7	2.5	2.7	2.8		
Residual Fuel Oil	1.2	1.1	1.1	1.2	1.1	1.1	1.0	1.0	1.0	1.0		
Average for Four-W	eek Peri	od Ending	:									
1982/1983	11/5	11/12	11/19	11/26	12/3	12/10	12/17	12/24	12/31	1/7	1/14	1/21
Motor Gasoline	6.2	6.2	6.2	6.1	6.2	6.2	6.3	6.3	6.5	6.4	6,4	6,4
Jet Fuel	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0
Distillate Fuel Oil	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.7	2.7	2.6	2.6	2.5
Residual Fuel Oil	1.0	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.1	R1.1	1.0

R=EIA revision.

1 Production statistics represent net production (i.e., refinery output minus refinery input).

Source: 

Monthly Data: 1981, EIA, "Petroleum Supply Annual!" 1982, EIA, "Petroleum Supply Monthly"

Four-Week Averages: Estimates based on EIA weekly data.

## Stocks of Crude Oil and Petroleum Products, U.S. Totals (Millions of Barrels)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1981 Crude Oil <sup>2</sup>	374 0	378 2	393 0	397.5	393 7	204.7	005.0	200.0		2012	P000	200 5
	276 1	284.0	285 0			384.7	385.9	362.0	356,0	364.0	366 0	363 5
Motor Gasoline				285.0	258 3	241.6	277 7	233.3	237.1	236 1	248 4	253 0
Finished Gasolina	228.3	229,6	232 1	223.2	2126	194.0	185.7	188 6	190.7	190.5	200 6	203 4
Blending Components	49.8 39.5	54.4 38.6	52 9 39.0	48 9 40,4	45 7 44 5	47.6	42.0	44.7	46.4	45.6	47.8	49 5
Jet Fuel						44 9	44.8	44 7	43,1	42.7	42 0	41.1
Distillate Fuel	179.4	172,5 77,9	164.3 74.8	164 6	171 8	179 9	186 3	200.2	207.3	201 2	200 1	191,5
Residual Fuel	82 1			729	78 1	69,4	69 3	74 9	80.2	79.9	81.4	78,0
Unfinished Oils	121 5	122,3	126 2	126.5	126 3	126,1	126.1	124 5	118 4	119.5	116 4	111 3
Other Oils	202 7	199,1	198.1	206 5	208 5	220.5	225 4	232.8	234.6	226.7	224.6	214,9
Total Stocks (Excl. SPR)	1,275.3	1,272.5	1,280 3	1,280 5	1,288 3	1,267.1	1,265 4	1,272.5	1,276.7	1,270 0	1,278 9	1,253 3
Crude Oil in SPR	112.5	116,1	120.9	134 2	150.1	163,1	173.1	184.7	199.2	214 8	222.5	230 3
Total Stocks (Incl. SPR)	1,387.8	1,388 5	1,401.2	1,414 8	1,438 3	1,430.2	1,439.5	1,457.2	1,476.0	1,484 8	1,501.5	1,483,6
1982												
Crude Oil <sup>2</sup>	370 9	3710	365 7	355 5	348 5	342.8	344 6	351.8	339 9	350.7		
Motor Gasoline	262.1	262.1	247.9	222 8	214 9	219.7	226 0	226.0	233 8			
Finished Gasoline	214 1	213,3	198 8	179.6	173.7	177.8	182.9			234.3		
Blending Components	47.9	48 8	49 1	43 3	41 2	41 9		184 8	191 3	192 1		
Jet Fuel	37 2	37 0	425	44.1	41 8	40.1	43.1 39.8	41 1	42.5	42.3		
Distillate Fuel	166 0	146 7	127 7	108 8	1145			40.8	39.7	40.9		
Residual Fuel Oil	68 2	58 1	573	53.6	59.1	124.5	148.1	158 9	161.2	170.2		
Unfinished Oils	1167	116.9	115.8	118.9	117.9	60.5	59,0	52.8	61.8	63 6		
Other Oils	204 6	198,4	195.4	1905		117.5	117 8	116.0	1178	1133		
Total Stocks (Excl. SPR)	1,225 6	1,190 2	1,152.4	1,094 3	191.7 1.088 4	192 9	191.5	187 6	182 5	176.1		
Crude Oil in SPR	235.3	241,2	248.5	255 5		1,098.1	1,126.8	1,133 8	1,136 6	1,149.1		
Total Stocks (Incl. SPR)	1,460 9	1,431.4	1,400.9		261.0	264 1	267.2	273 6	277.9	284.6		
	1,400 9	1,431.4	1,400.8	1,349 9	1,349.4	1,362.3	1,393.9	1,407 4	1,414.5	1,433.7		
Week Ending: 1982/1983	11/5	11/12	11/19	11/26	12/3	12/10	12/17	12/24	12/31	1/7	1/14	1/21
Crude Oil <sup>2</sup>	354 2	346 5	354.4	348 7	356.5	362 0	363.0	~~~~~~				
Motor Gasoline	227.5	227.2	225.2	225 2	225.5			359.1	354.2	349.2	R361.5	356.7
Finished Gasoline	NA NA	NA	NA	NA	225.5 NA	227.4	230.0	231.7	236.5	240.9	R242.6	242.B
Blending Components	NA	NA	NA NA	NA NA		NA	NA	NA	NA	201,4	B202.B	202.7
Jet Fuel	40.7	40.9	39 2		NA 40.0	NA	NA	NA	NA.	39.5	R39 8	40.0
Distillate Fuel Oil	167.8	40.9 171 5		40.8	40.8	39.4	40 2	38.1	37.7	37.4	R38 2	37.3
Residual Fuel Oil	61.9	62.9	176 4	177.2	183 7	186.0	180,5	182.2	181.3	177,8	R175.1	170.7
Unfinished Oils	1124		62 1	59.9	65 0	66.9	68.0	67 5	68.4	86.1	R63.6	62.1
Other Oils 3		114 4	111 8	112.2	1108	109.3	107.6	106.1	104.5	104.2	105.9	108,4
	E184.1	E183 7	£183.5	E176.2	E175 3	E173.2	E170,6	E167.1	E162.3	E169.8	E157.3	E154.7
Fotal Stocks (Excl. SPR)	1,148 5	1,147 1	1,152 4	1,140 3	1,157 6	1,164.2	1,159.8	1,151 8	1,145.0	R1,135.4	R1,144.1	1,132 7
Crude Oil in SPR	284 9	286.2	286 3	288 2	290.0	291 5	291,7	292.5	293.2	294.8	295.4	298,7
Fotal Stocks (Incl. SPR)	1,433.5	1,433,3	1,438.7	1,428.5	1,447 6	1,455.7	1,451,5	1,444.3	1,438.2	R1,430.2	R1,439.6	1,429.3

R=ElA ravision.
E=Estimated. See definition of "Stock Change (Relined Products)" (or explanation of other oils estimation methodology

NA-Not Available from 1982 weekly data forms. See Appendix D

1 Product stocks include those stocks held at refinerers, in pipelines, and at major bulk terminals

Stocks held at natural gas processing plants are included in "Other Oils" and in tools, all stock levels are as of the end of the period.

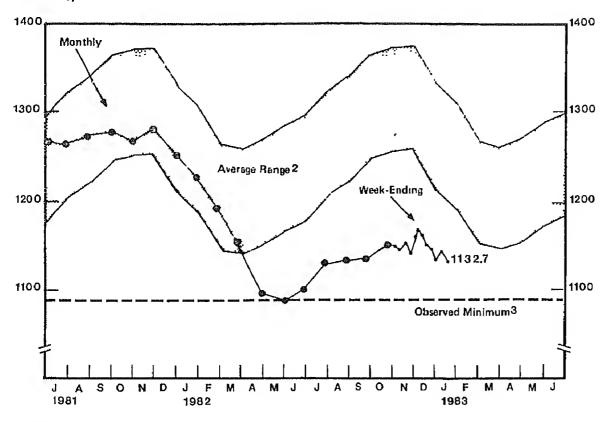
2 Crude all stocks include those stocks held at refinerers, in pipelines, in leese tanks, and in transit to refineries, and do not include those held in the Strategic Patroloum Reserve

3 Weekly totals for stocks of other oils are estimated using monthly data. Beginning with the WPSR issue of January 14, kerosone has been added to stocks of other oils. Other oils include Kerosene, aviation gasoline, natural gas liquids including athene, patrochemical feodstocks, special naphthas, tube oil, wax, cake, espheit, road oil, and miscellaneous oils.

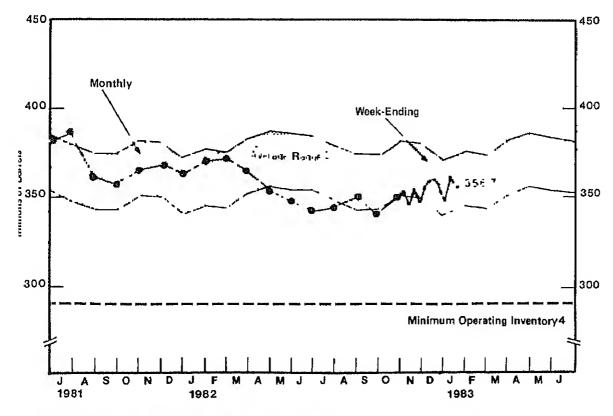
oils.
Source: Monthly Data: 1981, EIA, "Patroleum Supply Annual !" 1982, EIA, "Petroleum Supply Monthly "

a Week-Ending Stocks Estimates based on EIA weekly data,

### Crude Oil and Petroleum Products, U.S. Total of Barrels)



Crude Oil, U.S. Total of Barrels)



held in the Strategic Petroleum Reserve and includes crude oil in transit to refineries. Idth of average range, and observed minimum are based on three years of monthly data: July 1979—June 1982. The seasonal pattern is based on seven years of monthly 1976—December 1981. See Appendix B for further explanation.

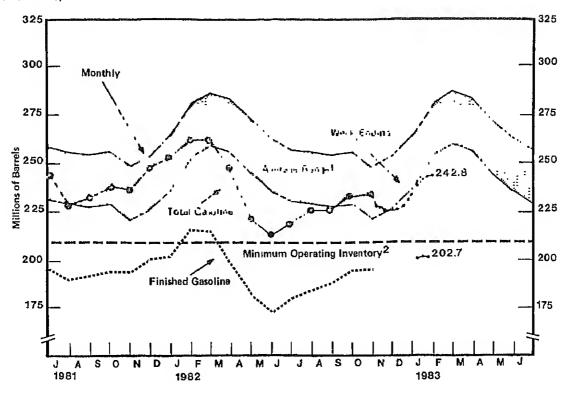
Inimum for total stocks in the last three-year period July 1979—June 1982, was 1988,4 million barrels. It occurred in May 1982. See Appendix B for further explanation.

troleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory level for crude oil

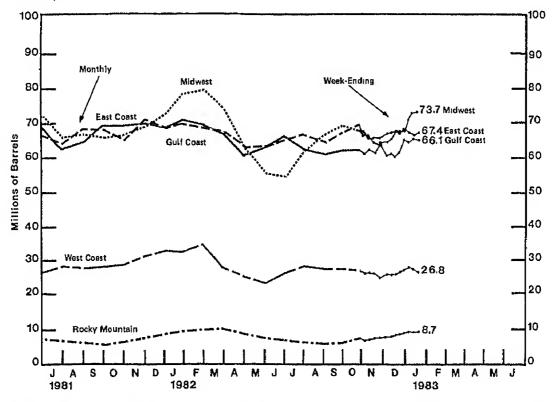
n barrals, See Appendix 8 for further explanation, and Seasonal Patterns. 1975–1980, EIA, "Petroleum Statement, Annual (Final Summary)," 1981, EIA, "Petroleum Supply Annual," but a 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly." Ending Stocks. Estimates based on EIA weekly data.

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	∧ug	Sop	Oct	Nov	Dec
1981		· · · · · · · · · · · · · · · · · · ·		*								
Finished Gasoline	226.3	229,6	232,1	223.2	212.6	194.0	185.7	188.6	190.7	190,5	200 6	203,4
Blending Components	49.8	54.4	52.9	48.9	45.7	47.6	42.0	44.7	46.4	45.6	47.8	49.5
Total Gasoline <sup>1</sup>	276.1	284.0	285,0	272.1	258.3	241.6	227.7	233.3	237.1	236.1	248,4	253.0
East Coast (PAD 1)	71.7	74.2	79.5	77.9	73.1	69.5	62.7	64.3	69,6	69.6	69,7	69.5
Midwest (PAD 2)	86.0	90.4	89.7	84.2	80.1	72.4	65.9	66.7	65.3	66 0	69,2	72.6
Gulf Coast (PAD 3)	77.2	79.6	78.5	76.2	72.2	65.9	64.0	68.6	68.5	65 0	70.6	69,5
Rocky Mountain (PAD 4)	9.7	10.3	10.2	9.4	8.6	7.4	6.5	60	5,8	6.3	1.1	8.5
West Coast (PAD 5)	31,5	29.5	26.9	24.4	24,3	26.3	28.6	27.8	27.9	29.2	31.2	32.9
1982												
Finished Gasoline	214.1	213.3	198.8	179.1	173.7	177.8	182.9	184.8	191.3	192.1		
Blending Components	47.9	48.8	49.1	43.3	41.2	41.9	43.1	41.1	42.5	42.3		
Total Gasoline <sup>1</sup>	262.1	262.1	247.9	222.8	214.9	219.7	226 0	226.0	233.8	234.3		
East Coast (PAD 1)	71.7	69.6	67.1	61.7	63.6	66.0	63.1	62.4	63.5	63,5		
Midwest (PAD 2)	78.6	79.1	74.8	63.2	56.8	56.6	62.6	65.8	69.5	67.0		
Gulf Coast (PAD 3)	70.2	69.2	68.0	63.4	63.6	65.0	66.1	64.4	67.4	69.8		
Rocky Mountain (PAD 4)	9.6	9.9	10.1	8.9	7.7	6.5	5.8	5.5	5.7	6.4		
West Coast (PAD 5)	32.0	34.3	27.8	25.5	23.3	25.7	28.4	27.7	27.7	27.6		
Week Ending:												
1982/1983	11/5	11/12	11/19	11/26	12/3	12/10	12/17	12/24	12/31	1/7	1/14	1/21
Finished Gasoline	NA	NA	NA	NA	NA	NA	NA	NA	NA	201,4	R202.8	202.7
Blending Components	NA	NA	NA	NA	NA	NA	NA	NA	NA	39.5	R39.8	40.0
Total Gasoline <sup>1</sup>	227.5	227.2	225.2	225 2	225.5	227.4	230.0	231.7	236.5	240.9	R242.6	242.8
East Coast (PAD 1)	62.8	63.6	62.8	64.6	64.7	65.8	67.6	67.4	0.80	67,3	R66 7	67.4
Midwest (PAD 2)	67.0	65.5	65.7	65.1	66.6	67.0	67.6	67.5	67.5	71.9	73.3	73.7
Gulf Coast (PAD 3)	66.1	66.1	64.6	64.2	61.8	62.0	61.0	62.1	65.7	64.9	R66.3	66.1
Rocky Mountain (PAD 4)	6.0	6.2	64	6.6	6.8	7.2	7.8	8.0	8.3	8.8	R8.6	8.7
West Coast (PAD 5)	25.6	25.9	25.7	24.8	26.6	25.3	25.9	26.5	27.4	28.0	27.8	26.8

R=EIA revision
NA\*Not Available from 1982 weekly data forms.
1 PAD district data may not add to total due to independent rounding
Source • Monthly Date 1981. EIA, "Petroleum Supply Annual." 1982, EIA, "Petroleum Supply Manthly"
• Week Ending Stocks • Estimates based on EIA weekly data



Stocks of Motor Gasoline by Petroleum Administration for Defense District (Millions of Barrels)



<sup>1</sup> Average level and width of average range for total motor gasoline are based on three years of monthly data. July 1979—June 1982. The seasonal pattern is based on six years of monthly data: January 1976—December 1976 and January 1978—December 1981. See Appendix 8 for further explanation.

2 The National Patroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory level for motor gasoline to be 210 million berrels. See Appendix 8 for further explanation.

Source: a flanges and Seasonal Patterns 1975—1980, EIA, "Petroleum Stetement, Annual (Final Summery)," 1981, EIA, "Petroleum Supply Annual."

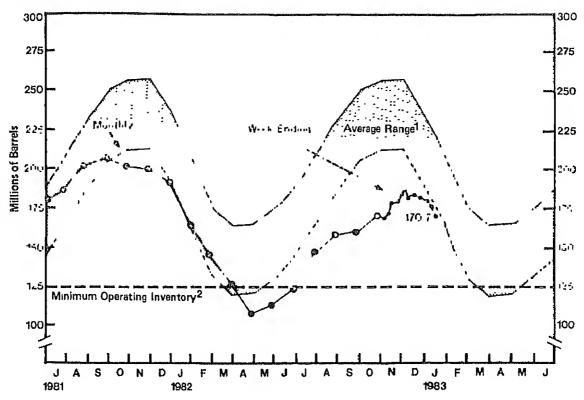
<sup>.</sup> Monthly Data. 1981, EFA, "Petroleum Supply Annual," 1982, EFA, "Petroleum Supply Monthly,"

<sup>·</sup> Week-Ending Stocks Estimates based on EIA weekly data.

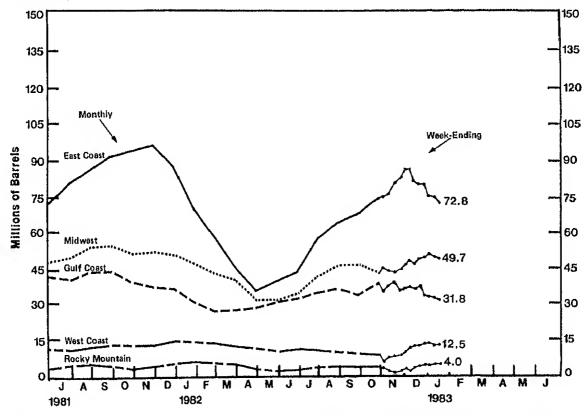
# Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District (Millions of Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1981												
Total U.S. <sup>1</sup>	179.4	172.5	164.3	164.6	171.8	179.9	186.3	200.2	207.3	201.2	200.1	191.5
East Coast (PAD 1)	71.9	69.8	64.7	64.4	68.2	73.8	81.3	86.3	92.0	94.8	96.0	87.4
Midwest (PAD 2)	57.7	56.1	52.5	52.4	50.5	48.7	49.8	54.1	54.3	51.0	51.6	<b>50.0</b>
Gulf Coast (PAD 3)	34 0	32.3	32.4	34.7	39.2	42.9	40.7	44.5	44.8	39.8	36.7	<b>35.5</b>
Rocky Mountain (PAD 4)	3.4	3.3	3.3	2.9	3.2	3.4	3.7	3.8	3.6	3.3	3.6	3.9
West Coast (PAD 5)	12.4	11.1	11.4	10.3	10.7	11.1	10.8	11.4	12.5	12.3	12.3	14.7
1982												
Total U.S. <sup>1</sup>	166.0	146.7	127.7	108.8	114.5	124.5	148.1	158.9	161.2	170.2		
East Coast (PAD 1)	69 2	58.4	44.9	35.1	39.2	44.2	57.4	63.9	68.0	75.7		
Midwest (PAD 2)	47.4	43.8	40 2	31.2	31.2	34.1	42.6	45.5	45.5	44.3		
Gulf Coast (PAD 3)	30 8	26.7	27.5	28.2	31 0	32.5	34.2	35.8	34.1	37.0		
Rocky Mountain (PAD 4)	4.1	3,9	3.7	3,1	2.8	3.0	3.4	3.5	3.5	3,5		
West Coast (PAD 5)	14.5	13.9	11.4	11.1	10.3	10.7	10.6	10.2	10.1	9.6		
Week Ending:												
1982/1983	11/5	11/12	11/19	11/26	12/3	12/10	12/17	12/24	12/31	1/7	1/14	1/21
Total U.S. <sup>1</sup>	167.8	171.5	176 4	177.2	183.7	186.0	180.5	182.2	181.3	177.8	R175.1	170.7
East Coast (PAD 1)	75.9	77.6	82 1	84.2	88.3	88.3	83.3	81.7	81.7	77.2	75.9	72.8
Midwest (PAD 2)	45.1	44.9	44.6	45.1	46.2	47.2	46.5	48.7	49.3	50.5	R50.0	49.7
Gulf Coast (PAD 3)	35.0	36.6	37.5	35.1	35.4	35.8	35.4	36.2	33.9	33.6	R32.7	31.8
Rocky Mountain (PAD 4)		3.3	3.0	3,3	3.4	3.3	3.5	3,6	3.9	3.7	4.0	4.0
West Coast (PAD 5)	8.5	9.1	9.2	9.5	10.4	11.4	11.9	11.9	12.6	12.7	R12.4	12.5
										1 4.7	1114.7	12,0

R=EIA revision
1 PAD district data may not add to total due to independent rounding
Source • Monthly Data 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly "
• Week Ending Stocks Estimates based on EIA weekly data



Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District (Millions of Barrels)



<sup>1</sup> Average level and width of average range are based on three years of monthly data: July 1979—June 1982. The seasonal pattern is based on seven years of monthly data: January 1975—December 1981. See Appendix B for further explanation.

2 The National Patroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory

level for distillate fuel oil to be 126 million berrels, See Appendix B for further explanation.

Source: a Ranges and Seasonal Patterns 1975—1980, EIA, "Petroleum Statement Annual (Final Summary)," 1981, EIA, "Petroleum Supply Annual."

Monthly Data: 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly."

<sup>•</sup> Week-Ending Stocks: Estimates based on EIA weekly data.

## Stocks of Residual Fuel Oil by Petroleum Administration for Defense District (Millions of Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1981		<u> </u>						74.0	00.2	79.9	81.4	78.0
Total U.S. <sup>1</sup>	82.1	77.9	74.8	72.9	78.1	69.4	69.3	74.9	80.2	40.4	43.0	40.1
East Coast (PAD 1)	39.0	38.5	37.3	36.3	38.2	33.6	33.0	34.4	40.0 8.5	8.0	8.2	8.3
Midwest (PAD 2)	9.2	9.0	7.9	7.3	7.1	7.0	7.7	8.1	_		19.7	18.7
Gulf Coast (PAD 3)	21.8	19.7	19.4	19.1	21.7	17.0	17.4	21.2	20.4	20.4	0.7	0.7
Rocky Mountain (PAD 4)	8.0	0.7	0.6	0.5	0.6	0.6	0.5	0.6	0.7	0.7		10.2
West Coast (PAD 5)	11.4	10.1	9.7	9.7	10.5	11.2	10.7	10.7	10.7	10.4	9.8	10.2
1982												
Total U.S. <sup>1</sup>	68.2	58.1	57.3	53.6	59.1	60.5	59.0	52.8	61.8	63.6		
East Coast (PAD 1)	32.2	24.9	24.8	23.5	28.3	28.2	27.1	23.1	29.0	32.8		
Midwest (PAD 2)	7.7	7.3	7.0	6.2	6.0	5.7	5.7	5.3	5.8	5.1		
Gulf Coast (PAD 3)	17.4	14.4	14.7	13.5	14.9	17.1	16.4	15.6	16.2	15.6		
Rocky Mountain (PAD 4)	0.6	0.7	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.5		
West Coast (PAD 5)	10.2	11.0	10.3	7.9	9.4	9.2	9.3	8.4	10.4	9.6		
Week Ending:												
1982/1983	11/5	11/12	11/19	11/26	12/3	12/10	12/17	12/24	12/31	1/7	1/14	1/21
Total U.S. <sup>1</sup>	61.9	62.9	62.1	59.9	65.0	66.9	68.0	67.5	68.4	66.1	R63.6	62.1
East Coast (PAD 1)	32.5	33.8	34.4	32.0	35.5	36.6	35.9	34.0	34.5	34.0	R32.4	30.7
Midwest (PAD 2)	4.6	4.7	4.6	4.7	4.7	4.8	5.0	5.1	6.1	5.7	5.9	6.0
Gulf Coast (PAD 3)	15.8	16.1	14.9	14.4	16.1	16.3	17.9	18.9	18.1	16.8	R15.9	15.4
Rocky Mountain (PAD 4)	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
West Coast (PAD 5)	8.4	7.8	7.6	8.2	8.1	8.5	8.5	8.9	9.1	8.8	8.7	9.5
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R=EIA revision

1 PAD district data may not add to total due to independent rounding

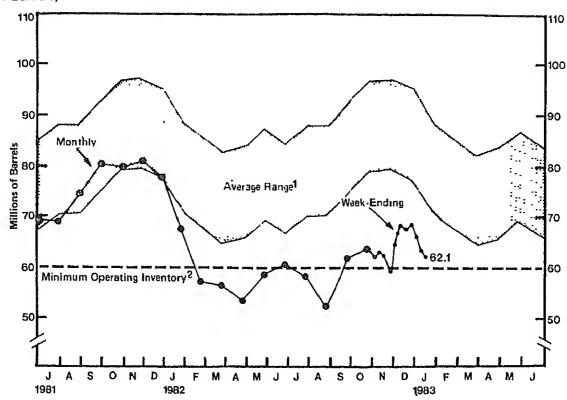
1 PAD district data may not add to total due to independent rounding

Source: 

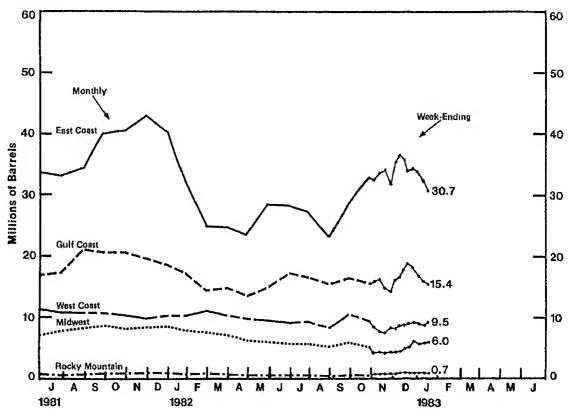
Monthly Data 1981, EIA, "Petroleum Supply Annuel," 1982, EIA, "Petroleum Supply Monthly,"

Week Ending Stocks

Estimates based on EIA weekly data



Stocks of Residual Fuel Oil by Petroleum Administration for Defense District (Millions of Barrels)



<sup>1</sup> Average level and width of average range are based on three years of monthly data. July 1979-June 1982. The seasonal pattern is based on seven years of monthly data:

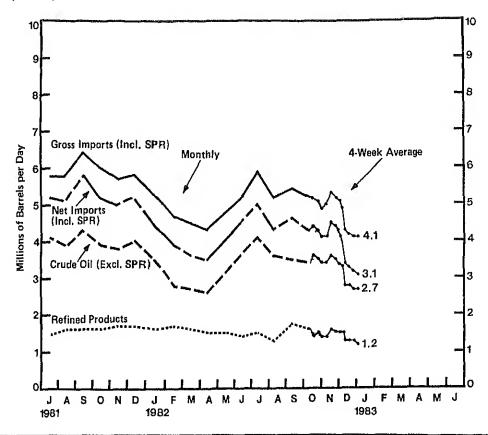
January 1975—December 1981. See Appendix B for further explanation.

2 The National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory level for residual fuel oil to be 60 million berrels. See Appendix B for further explanation.

Source: e Ranges and Seasonal Patterns 1975—1980, EIA, "Petroleum Statement Annual (Final Summary)," 1981, EIA, "Petroleum Supply Annual."

e Monthly Data: 1981, EIA, "Petroleum Supply Annual." 1982, EIA, "Petroleum Supply Monthly."

e Week-Ending Stocks Estimates based on EIA weekly data.



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1981												
Crude Oil (Excl. SPR)	4.8	4.8	4.4	4.1	3.9	3.7	4.1	3.9	4.3	3.9	3.8	4.0
SPR	0.1	0.1	0.1	0.3	0.4	0.3	0.2	0.3	0.4	0.5	0.3	0.2
Refined Products	1.9	1.9	1.5	1.3	1.5	1.4	1.5	1.6	1.6	1.6	1.7	1.7
Gross Imports (Incl. SPR)	6.8	6.8	6.0	5.7	5.8	5.4	5.8	5.8	6.4	6.0	5.7	5.8
Total Exports <sup>1</sup>	0.6	0.6	0.6	0.6	0.6	0.4	0.6	0.6	0.5	0.7	0.7	0.7
Net Imports (Incl. SPR)	6.3	6.2	5.4	5.1	5.2	5.0	5.2	5.1	5.8	5.2	5.0	5.2
1982												
Crude Oil (Excl. SPR)	3.5	2.8	2.7	2.6	3.1	3.7	4.1	3.6	3.5	3.4		
SPR	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0,1	0.2		
Refined Products	1,6	1.7	1.6	1.5	1.5	1.4	1.5	1.3	1.8	1.6		
Gross Imports (Incl. SPR)	5.2	4.7	4.5	4.3	4,8	5.2	5.8	5.2	5.4	5.2		
Total Exports <sup>1</sup>	0.8	0.8	0.9	0.8	0.8	0.7	0.7	0.9	0.8	0.9		
Net Imports (Incl. SPR)	4.4	3.9	3.6	3.5	4.0	4.5	5.0	4.3	4.6	4.3		
Average for Four-Week Peri-	od Endine	1:										
1982/1983	11/5	11/12	11/19	11/26	12/3	12/10	12/17	12/24	12/31	1/7	1/14	1/21
Crude Oil (Excl. SPR)	3.6	3.5	3.4	3.4	3.6	3.5	3.4	3.3	2.8	2.8	2.7	2.7
SPR	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Refined Products	1.4	1.5	1.4	1.4	1.6	1.5	1.5	1.5	1.3	1.3	1.3	1.2
Gross Imports (Incl. SPR)	5.2	5.1	4.9	5.0	5,3	5.2	5.1	4.9	4.3	4.2	4.1	4.1
Total Exports <sup>1</sup>	E0.8	E0.9	E0.9	E0.8	E0.8	E0.8	E0.8	E0.8	E0.9	E0.9	E0.9	E0.9
Net Imports (Incl. SPR)	4.4	4.3	4.1	4.1	4.5	4.4	4.3	4.1	3.4	3.3	3.2	3,1

E= Estimate based on most recent monthly data available.

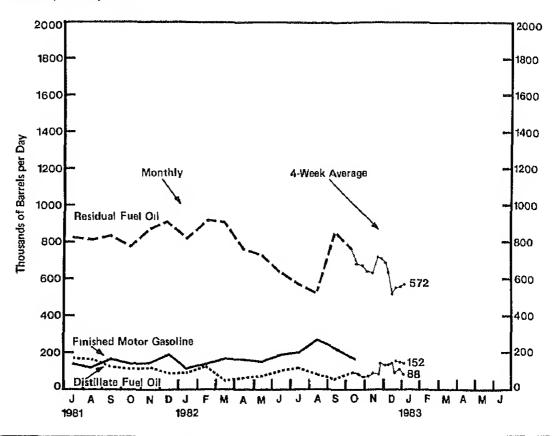
E= Estimate based on most recent monthly data available.

1 Includes exports of crude oil and refined petroleum products. Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange on a barrel for barrel basis. Shipments of crude oil to Puerto Rico and the Wirgin Islands are not prohibited because these territories are U.S. possessions.

Source: • Monthly Data. 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly"

• Four-Week Averages. Estimates based on EIA weekly data.

Note: Detail data may not add to total due to independent rounding.



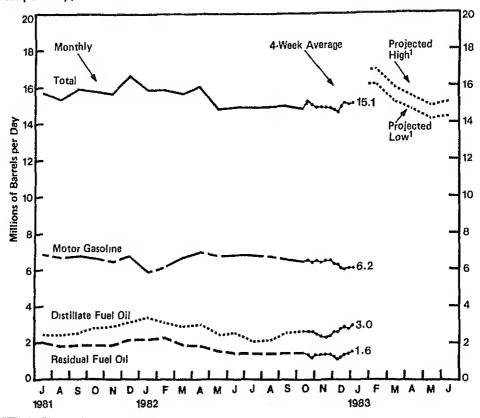
Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1981												
Finished Motor Gasoline <sup>1</sup>	138	<b>1</b> 11	171	186	150	186	151	124	169	147	148	197
Jet Fuel	15	38	76	55	47	68	35	47	46	14	9	7
Distillate Fuel Oil	273	325	147	116	179	225	179	174	129	119	124	95
Residual Fuel Oil	1,015	954	699	584	741	540	830	819	841	786	880	916
Other <sup>2</sup>	453	471	414	<b>38</b> 9	371	356	327	424	438	514	533	491
1982												
Finished Motor Gasoline <sup>1</sup>	114	133	183	177	163	195	200	284	215	177		
Jet Fuel	10	62	39	47	31	3	15	26	30	20		
Distillate Fuel Oil	96	130	48	59	74	100	124	79	59	97		
Residual Fuel Oil	821	928	910	762	738	643	576	519	871	758		
Other <sup>2</sup>	544	489	425	428	464	504	578	428	580	542		
Average for Four-Week Per	riod Endi	na !										
1982/1983	11/5	11/12	11/19	11/26	12/3	12/10	12/17	12/24	12/31	1/7	1/14	1/2
Finished Motor Gasoline <sup>1</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	158	154	152
Jet Fuel	25	17	18	23	23	24	13	20	14	17	17	26
Distillate Fuel Oil	84	78	79	95	81	145	134	144	152	94	106	88
Residual Fuel Oil	679	660	639	626	724	714	673	629	525	553	563	572
Other <sup>2</sup>	NA	NA	NA	NA	ŇA	NA	NA	NA	NA	483	430	401

NA=Not Available from 1982 weekly data forms. See Appendix D.

<sup>1</sup> Motor gazoline imports are only finished gazoline imports. The 1981 and 1982 monthly values for motor gazoline imports have been adjusted to a xelude motor gazoline blending components. Blending component imports are included in other imports.

2 includes imports of kerosena, unlinished oils, motor gazoline blending components, liquelsed petroleum gazes and other oils.

Source : • Monthly Date: 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly."
• Four-Wesk Averages: Estimates based on EIA weekly date.



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1981	-											<del></del>
Motor Gasoline	6.4	6.3	6.3	6.6	6.6	7.0	6.8	6.6	6.7	6.6	6.4	6,7
Jet Fuel	1.1	1.0	1.1	1.0	0.9	1,0	1.1	1.0	1.0	0.9	1.0	1.0
Distillate Fuel Oil <sup>2</sup>	4.1	3,4	2.9	2.5	2,4	2.4	2.4	2.4	2.5	2.8	2.9	3,2
Residual Fuel Oil <sup>2</sup>	2.9	2,5	2.1	1.9	1.8	2.0	2.0	1.8	1.9	1.9	1.9	2.3
Other <sup>3</sup>	3.9	3,8	3.5	3.4	3.7	3.7	3.4	3.5	3.8	3.6	3,4	3.4
Total	18.4	17.0	15.9	15.4	15.4	16.1	15.7	15.3	15.9	15.8	15.6	16.6
1982												
Motor Gasoline	5.9	6.1	6.6	6.9	6.7	6.8	6.8	6.7	6.5	6.4		
Jet Fuel	1.0	1.1	1.C	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
Distillate Fuel Oil <sup>2</sup>	3.4	3.2	2.9	3.0	2.4	2.5	2.1	2.2	2.5	2.6		
Residual Fuel Oil <sup>2</sup>	2.2	2.3	1.9	1.9	1.6	1.5	1.5	1.5	1.5	1.5		
Other3	3.4	3.2	3.2	3.2	3.1	3.1	3.4	3.4	3.4	3.4		
Total	15.9	15.9	15.6	16.0	14.8	14.9	14.8	14.8	14.9	14.8		
Average for Four-We	ek Period	l Ending:										
1982/1983	11/5	11/12	11/19	11/26	12/3	12/10	12/17	12/24	12/31	1/7	1/14	1/21
Motor Gasoline	6.5	6.4	6.5	6.4	6.5	6.5	6.3	6,3	6.2	6,0	R6.2	6.0
Jet Fuel	0.9	1.0	1.1	1.0	1.0	1.1	0.9	1.1	1.1	1.0	R1.1	6.2
Distillate Fuel Oil <sup>2</sup>	2.6	2.6	2.5	2.4	2.3	2.4	2.6	2.6	2.8	2.9	2.8	1.1
Residual Fuel Oil <sup>2</sup>	1.4	1.3	1.4	1.4	1.4	1.4	1.3	1.2	1.3	1.4		3.0
Other3	3.7	3.6	3.4	3.5	3.5	3.5	3.6	3.4	3.5	3.7	1.5	1.6
Total	15.2	15.0	14.8	14.8	14.8	14.8	14.7	14.6	3.6 14.9	ა./ 15.1	R3.5 15.0	3,3 15.1

R=EIA revision,

R-EIA revision.

1 Projected Sea Appendix C for explanation of derivation of values.

2 Beginning in 1983, crude oil burned as residual fuel oil or distillate fuel oil is no longer reported to EIA and therefore is not included in 1983 product supplied calculations for these fuels. The product supplied series for distillate and residual fuel oil for 1981 and 1982 shown on this page are the values published in 1981 and 1982 EIA publications and include crude oil transfers (about 50 thousand barrels per day for residual fuel oil and 10 thousand barrels per day for distillate fuel oil). See Appendix D for further explanation,

3 Other products upplied includes kerosene as well as products previously included.

Source: a Monthly Data: 1981, EIA, "Petroleum Supply Annual," 1982, EIA, "Petroleum Supply Monthly,"

a Four Week Averages. Estimates based on EIA weekly data.

b Projections: EIA, Office of Energy Markets and End Use (November 1982).

## Average Retail Selling Prices Motor Gasoline and Residential Heating Oil (Cents per Gallon, Including Taxes)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1981				<del></del>					······································	·		
Motor Gasoline												
Leaded Premium	133.8	141.0	144.9	145.1	144.7	144.6	144.6	144.4	145.6	145.7	146.2	146.0
Leaded Regular	123.8	132.1	135.2	134.4	133.3	132.4	131.5	131.0	130.5	129.9	129.7	129.3
Unleaded Regular	129.8	138.2	141.7	141.2	140.0	139.1	138.2	137.6	137.6	137.1	136.9	136.5
All-types	126.9	135.3	138.8	138.1	137.0	136.2	135.3	134.8	135.8	135.3	135.1	134.8
Residential Heating Oil	114.4	123.4	125.5	123,9	122,7	120.9	121.0	119.4	119.7	118.8	120.8	122.0
1982												
Motor Gasoline												
Leaded Premium	145.6	143.8	140.7	136.8	137.9	140.8	145.0	145.8	144.1	141,3	141.2	137.1
Leaded Regular	128.5	126.0	120.6	114.8	116.6	124.2	126.3	125.4	123.6	121.9	120.7	118.1
Unleaded Regular	135.8	133.4	128.4	122.5	123.7	130.9	133.1	132.3	130.8	129.5	128.3	126.0
All-types	134.1	131.8	126.8	121.0	122.4	129.6	131.8	131.0	129.5	128.0	126.8	124.4
Residential Heating Oil	122.0	120.7	115.3	113.2	114.3	116.2	115.8	115.9	115.2	R119.6		147.7

R=EIA revision, P=Preliminary

Note: Motor gasoline data include prices from self-service stations. Eginning with September 1981, the Bureau of Labor Statistics has changed the weights used in the calculation of average motor gasoline prices In the "all types" category gasohol is now included, and unleaded premium is weighted more heavily.

Source: 

Motor Gasoline-Bureau of Lebor Stetistics. See definitions for description of survey.

Residential Heating Oil—Form EIA-9A, "No. 2 Distillate Price Monitoring Report"

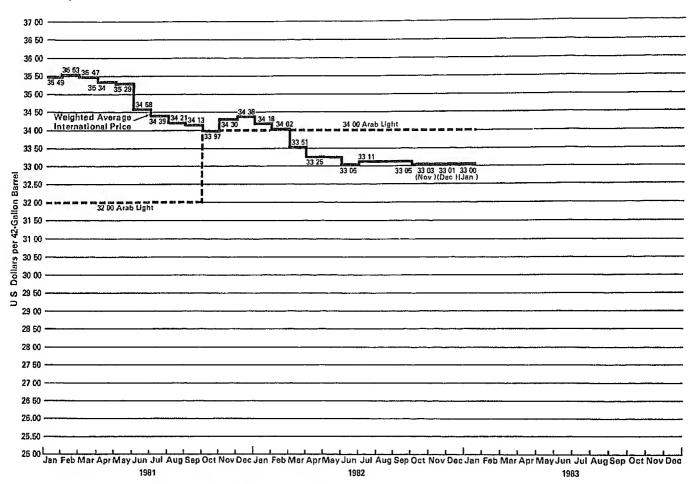
### Refiner Acquisition Cost of Crude Oil (Dollars per Barrel)

Year/Type	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
1981				_					. <u>.</u>			
Domestic	32.71	36.27	36.97	35.58	35.21	34.20	33.76	33,79	33,47	33.48	33.49	33,51
Imported	38.85	39.00	38.31	38.41	37.84	37.03	36.58	35.82	35,44	35.43	36.21	35.95
Composite	34.86	37.28	37.48	36.58	36.11	35.03	34.70	34.46	34.11	34.07	34.33	34.33
1982												
Domestic	33.39	32.71	31.08	30.27	30.37	30.79	30.92	30.85	30.76	31.38	P31.53	
Imported	35.54	35.48	34.07	32.82	32.78	33.79	33,44	32.95	33.03	33.28	P33.26	
Composite	33.95	33,40	31,81	30.83	31,02	31.74	31,74	31,45	31,40	31.98	P32.11	

P=Preliminary

Source: e Form EIA-14, "Refiners Monthly Cost Report "

### World Crude Oil Prices1 (Dollars per Barrel)



Internationally traded oil only Average price (FOB) weighted by estimated export volume

Note Beginning with the May 1, 1931 issue of the Weekly Petroleum Status
Report, the world crude oil price is based on a revised crude list
Additions Saudi Arabia's Arabian Heavy, Dubai's Fateh, Egypt's Suez Blend and Mexico's Maya
Omissions Canadian Heavy
Replacements leag's Kirkuk Blend for Iraq's Basrah Light
The above graph shows an astimated world crude oil price based on this revised list
beginning January 1, 1931.

	Type of							Change rice From
Country	Crude/ API Gravity	Cursent Price	In Effect 1 Jan 82	In Effect 1 Jan 81	In Effect 1 Jan 80	In Effect 31 Dec 78	in Effect 1 Jan 80	In Effect 31 Dec 78
OPEC								
Sauda Arabia	Arabian Light 34 <sup>0</sup> (Bench mark crude)	34 00	34,00	32 00	26 00	12 70	30 8	167 7
	Saudi Berri 390	34 52	35 40	33,52	27 52	13.23	25 4	160 9
	Arabian Heavy 280	31 00	31.00	31 00	25 00	12 02	24 0	157 9
Abu Dhabi	Murban 39 <sup>0</sup>	34.56	35 50	36 56	29 56	13 26	169	160 6
Dubai	Fateh 320	33 86	33 86	35 93	27 93	12 64	21 2	167 9
Qatar	Dukhan 40 <sup>0</sup>	34 49	35.45	37 42	_29 42	13 19	17 2	161.5
Iran	Iranian Light 34 <sup>0</sup>	31 20	34,20	37 00	230 00	13 45	4.0	132 0
iraq	Kirkuk 360	34 B3	34,93	37 50	29 29	13.17	189	164 5
Kuwait	Kuwait Blend 31 <sup>0</sup>	32 30	32.30	35 50	27 50	12.22	17 5	164.3
Neutral Zone	Khafu 28 <sup>0</sup>	31 03	31.03	35 20	27.20	12.03	14.1	157.9
Algeria	Saharan 44 <sup>0</sup>	35 50	37.00	40,00	33,00	14 10	7.6	151.8
Nigeria	Bonny Light 370	35 50	36.50	40 00	29 97	15 12	185	134.8
Libya	Es Sider 370	35.10	36.50	40 78	34.50	13 68	17	156.6
Indonesia	Minas 34 <sup>0</sup>	34.53	35.00	35 00	27 50	13 55	25.6	154.8
Venezuela	Tia Junna 26°	32.88	32 88	32 88	25 20	12 72	30 5	158 5
Gabon	Mandiì 29.60	34 00	34 00	35 00	28 00	12 69	21 4	170 1
	Oriente 300	34 00 32 50		40 06	33 50	12,35	-3.0	163 2
Ecuador	Offente 30	32 80	34 25	40 00	22.20	[ 2,00	-0.0	.002
Total OPEC <sup>3</sup>	NA	33.64	34.13	34.82	28 30	13.03	18.5	167.4
Non OPEC								
United Kingdom	Fortles 36.5 <sup>0</sup> Ekofisk 42 <sup>0</sup>	33,50	36.50	39.25	29.75	14 00	12.6	139 3
Norway	Ekofisk 42 <sup>0</sup>	34.25	37.25	40.00	32.50	14 20	5.4	141.2
Mexico	Mexican Light 32°	32 50	35.00	38.50	32.00	13.10	1.6	148.1
**	Mexican Heavy 220	25 00	26,50	34,50	28.00	NA	-10.7	NA
Egypt	Suez Bland 33	425 00 431,00	34.00	40.50	34.00	12.81	-8,8	142 0
Oman	Oman 360	34.00	35.00	37,50	30.26	13.06	12.4	160.3
Syria	Suwadiyah 260	30,00	30 00	36.03	31,39	11,64	-44	157,7
Melaysia	Suwediyah 26 <sup>0</sup> Miri 38 <sup>0</sup>	35,60	36,50	41,30	33,60	14,30	6.0	149.0
and the second s	Seria 36.50	35.10	36 10	40,35	33,40	14.15	5.1	148.1
Brunel U.S.S.R.5	Export Bland 33°	31 20	35 49	39.25	33,20	13,20	6.0	136 4
Total Non OPEC 3	NA	31.72	34,35	38.54	31.94	13.44	-07	138 0
Total World <sup>3</sup>	NA	33,00	34.18	35.49	28.84	13 08	14.4	152.3
United States	NA	32,51	34.15	36 69	29.35	13 38	10.8	143.0

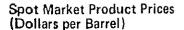
NA=Not Applicable
1 Official sales prices or estimated term contract prices, spot prices excluded
2 37c higher at 60 days' credit.
3 Average prices (FOB) weighted by estimated export volume.
4 On 60 days' credit
5 Average stellvered cost to Northwest Europe
6 Average prices (FOB) weighted by estimated import volume
Source = DDE, Office of International Affairs, January 26, 1983.

= Platt's Oilgram Price Report.

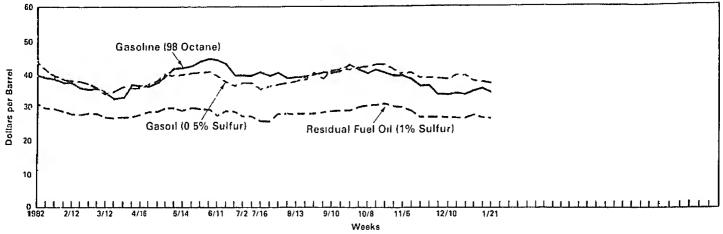
= Patroleum Intelligence Weekly

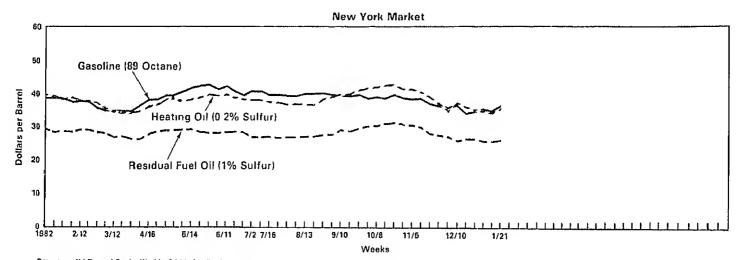
= Oil Buyers' Guide

= Europe Oil Prices.









Source Oil Buyers' Guide, Weekly Oil Market Product Report
OOE, Office of International Affairs.

		Motor	Gasoline	Gasoil/H	eating Oil <sup>1</sup>	Residua	l Fuel Oil <sup>2</sup>
		Rotterdam (98 Octane)	N.Y. <sup>3</sup> (89 Octane)	Rotterdam (0.5% Sulfur)	N.Y. <sup>4</sup> (0.2% Sulfur)	Rotterdam (1% Sulfur)	N.Y. <sup>3</sup> (1% Sulfur
982 Jan	8	39.98	39.67	44.30	40.42	31.68	28.40
	15	38.68	38.72	43.57	39.90	30.78	29.00
	22	38.57	38.93	40.88	39.38	29.50	28.35
	29	38.22	38.30	39.21	38.22	29.73	28.70
Feb	5	37.22	37.67	38.40	38.54	28.68	28.50
I en	12	37.22 37.22	37.61	37.87	37.90	27.93	29.25
				37.87 37.87	37.80	27.93	29.25
	19	35.93	37.61	37.00	37.38	28.08	28.50
М.А	26	35.52	35.72		35.28	28.08	28.00
Mar	5	35.46	34.88	35.32		26.95	27.00 27.00
	12	34.41	34.57	34.38	33,60		
	19	32.42	34.55	34.99	34.02	26.50	27.00
	26	32.83	34.52	36.13	34.06	26.65	26.25
Apr	2	36.64	36.54	35.52	34.54	26.80	26.25
	9	36.17	38.01	35.72	36.12	27.78	27.70
	16	36.64	38.22	36.66	36.54	28.53	28.50
	23	37.51	39.69	37.87	38.22	28.75	28.75
	30	39,57	39.40	39.68	38.32	29.43	29.00
May		41.68	40.53	38.81	37.80	29.80	29.25
,	12	41.85	41.87	39.21	38.32	29.73	29.50
	19	42.67	42.29	40.21	38.85	29.73	28.75
	26	43.79	42.61	40.35	39.69	29.43	28.35
1		44.37	41.68	40.55	39.48	29.05	28.35
Jun	4			39.34	39.90	27.40	28.40
	11	44.08	42.21		38.64	28.60	28.50
	18	43.08	40.66	37.60			
	25	39.57	39.56	36.53	38.33	28.45	28.25
Jul	2	39.86	40.07	37.27	38.01	27.10	27.00
	9	39.86	40.07	37.27	38.01	27.10	27.00
	16	40.04	39.73	35.32	37.59	25.90	27.00
	23	39.57	39.84	36.13	37,38	25.53	26.80
	30	40.12	39.59	36.98	36.96	27.78	27.00
Aug		38.80	39.59	37.33	37.06	28.00	27.00
	13	38.45	40.00	37.60	37.80	27.85	27.00
	20	39.15	40,00	38.70	37.80	27.85	27,25
	27	39.86	40.05	40.28	38.32	27.85	27.75
Sep	3	40.56	39.84	38.46	39.48	28.38	28.00
Och	10	40.39	39.69	41.02	39.58	28.68	29.25
	17	41.03	39.38	41.22	39.90	28.75	28.75
	24	42.61	39.38	41.22	41.26	28.90	29.60
0.4		41.03	38.54	41.96	41.58	29.88	30.25
Oct	1				42.00	30.33	30.35
	8	40.15	38.96	42.29	42.42	30.48	31.00
	15	41.03	38.74	42.96			
	22	40.04	39.69	42.76	42.74	30.78	31,35
	29	39.39	38.96	41.42	41.37	30.26	30.75
Nov		39.80	38.45	39,88	41.37	29.95	30.50
	12	38.22	38.56	40.28	40.32	28.75	30.00
	19	36.11	37.02	38.81	38.85	26.88	28.00
	26	36.28	36.33	38.87	37.06	26.88	27.50
Dec		33.65	35.76	38.67	35.07	26.95	26.75
	10	33.88	36.50	38.20	36,96	26.80	25.75
	17	34,00	35,13	39,75	36.12	26.73	26.35
	24	33.70	34.92	39.28	34.86	26.73	26.35
1983 Jan	7	34.88	35.13	37.73	34.86	27.55	25.75
-	14	35.46	34.82	37.47	34.44	26.73	25.75
	21	34.29	36.29	37.00	35.60	26.58	26.00

<sup>1</sup> Refers to No. 2 Heating Oil
2 Refers to No. 6 Oil.
3 East Coast Cargoes.
4 New York Harbor Reseller Barge Prices.
Source: • Oil Buyers' Guide, Weekly Oil Market Product Report.
• DOE, Office of International Affairs.

## Weather Summary (Population Weighted Heating Degree-Days 1)

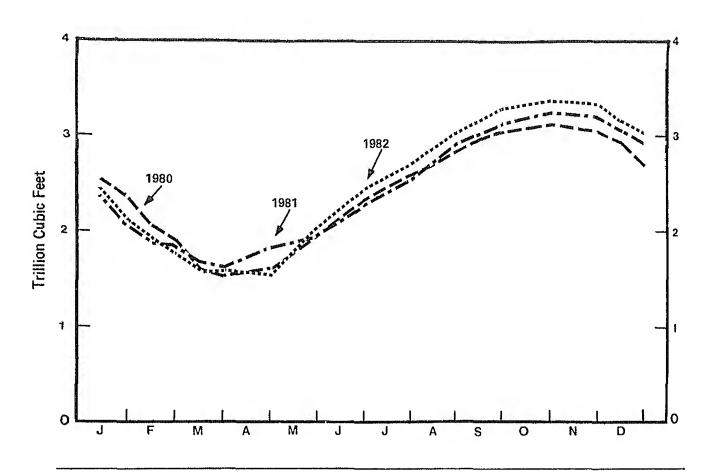
The weather for the nation, as measured by population-weighted heating degree-days from July 1, 1982 through January 23, 1983, has been 9.3 percent warmer than normal and 14.7 percent warmer than last year.

Heating Degree-Days, U. S. Total (Population Weighted) and By City

				Percent	Change	
	1982—1983 This year	1981–1982 Last year	Normal	This year vs. Last year	This year vs. Normal	
				•		
U.S. Total		4.007	4 605			
July 1 - June 30	<del></del>	4,967	4,695			
July 1 - January 23	2,128	2,496	2,346	-14.7	-9.3	
Cities						
Albuquerque	2,637	2,256	2,429	17	9	
Amarillo	2,464	2,210	2,281	11	8	
Asheville	2,190	2,544	2,319	-14	-6	
Atlanta	1,569	1,936	1,745	-19	-10	
Billings	3,359	3,885	3,796	-14	-12	
Boise	3,209	3,170	3,162	1	1	
Boston	2,525	3,091	2,793	-18	·10	
Buffalo	2,988	3,656	3,449	-18	-13	
Cheyenne	3,743	3,519	3,690	6	1	
Chicago	3,021	3,822	3,397	-21	-11	
Cincinnati	2,283	3,142	2,703	-27	-16	
Cleveland	2,572	3,401	3,133	-24	·18	
Columbia, SC	1,511	1,737	1,498	-13	1	
Denver	3,351	2,715	3,111	23	8	
Des Moines	3,104	3,679	3,566	·16	-13	
Detroit	2,975	3,675	3,308	-19	-10	
	4,557	5,183	4,903	-12	-7	
Fargo	2,918	3,350	3,280	·13	-11	
Hartford	918	819	825	12	11	
Houston	741	817	757	-9	·2	
Jacksonville	2,784	3,176	2,913	-12	-4	
Kansas City		1,234	1,534	26	1	
Las Vegas	1,553 507	549	817	-8	-38	
Los Angeles	1,574	1,943	1,832	-19	-38 -14	
Memphis		139	1,632	-19 -52	-14 -37	
Miami	67	4,202	3,802	-23		
Milwaukee	3,247	4,498	4,308		-15 10	
Minneapolis	3,860			-14	-10	
Montgomery	1,031	1,306	1,325	-21	-22	
New York	2,229	2,725	2,452	-18	-9	
Oklahoma City	1,942	2,215	2,064	-12	-6	
Omaha	3,204	3,898	3,256	-18	-2	
Philadelphia	2,284	2,861	2,525	·20	-10	
	627	508	909	23	-31	
	2,702	3,511	3,131	-23	-14	
E	3,483	3,832	3,782	-9	-8	
	2,611	3,333	2,982	-22	-12	
	1,787	2,182	1,954	-18	-9	
	1,870	2,375	2,147	-21	-13	
	2,439	2,582	2,534	-6	-4	
ity	3,227	2,814	3,227	15	0	
co	1,600	1,547	1,535	3	4	
	2,498	2,540	2,725	-2	-8	
	1,392	1,426	1,252	.2	11	
	2,352	2,883	2,581	-18	-9	
, D.C.	1,861	2,307	2,249	-19	-17	

ys for a given location on a given day are the number of degrees that the mean temperature (average of daily maximum and minimum temperatures) that day is ting degree-days give a rough measure of the demand for heating oil

Oceanic and Atmospheric Administration, Department of Commerce, see Bureau, 1981 Population Estimates.



		Workin	ng Gas1		
	1980	1981	1982	1983	
January 15	2.566	2.368	2.492	P2.910	
January 31	2.324	2.152	2.181		
February 15	2.034	1.853	1.900		
February 28	1.852	1.824	1.786		
March 15	1.661	1.699	1.661		
March 31	1.594	1.631	1.603		
April 30	1.691	1.764	1,675		
May 31	1.998	1.977	2.033		
June 30	2.299	2,252	2.368		
July 31	2,587	2.556	2,706		
August 31	2.854	2.882	3.001		
September 30	3.099	3.152	3,251		
October 31	3.187	3.247	3.362		
November 30	3.026	3.200	3,309		
December 15	2,882	3.048	3.197		
December 31	2.655	2.815	3.072		

P=Preliminary.

1 Working Gas: Gas available for withdrawal.
Source: • FEA System; EIA 191, "Underground Gas Storage Report."

### Appendix A: EIA Weekly Data: Survey Design and Estimation Methods

The Weekly Petroleum Reporting System (WPSR) comprises five surveys: the "Weekly Refinery Report" (EIA-800); the "Weekly Bulk Terminal Report" (EIA-801), the "Weekly Product Pipeline Report" (EIA-802); the "Weekly Crude Oil Stocks Report" (EIA-803); and the "Weekly Imports Report" (EIA-804). The EIA weekly reporting system, as part of the Petroleum Supply Reporting System, was designed to collect data similar to those collected monthly. In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data are used to estimate the published weekly totals.

### Sample Frame

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly. All sampled companies report data only for facilities in the 50 States and District of Columbia. The EIA-800 sample frame includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline. The EIA-801 sample frame includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The EIA-802 sample frame includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that only transport natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies which transport products covered in the weekly survey are included. The EIA-803 sample frame consists of all trunk pipeline companies in the United States and its territories which transport crude oil, all crude oil producers, all terminal operators, and all storers of 1,000 barrels or more of crude oil. The EIA-804 sample frame includes all importers of record of crude oil and petroleum products into the United States.

### Sampling

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for the previous time period.

Module Page	Refiners (Refinerles)	Bulk Terminals	Pipalines	Crude Oil Stock Holders	Importers	
Weekly Form	EIA-800	EIA-801	EIA-802	EIA-803	EIA-804	
Monthly Frame Size	186(347)	173	65	296	955	
Weekly Sample Size	84(215)	93	65	111	61	

### **Collection Methods**

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms and terminal operating companies must file by 5:00 p.m. on the Monday following the close of the report period, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

### Estimation and Imputation

After the company reports have been checked and entered into the weekly data base, ratio estimates of the weekly totals are calculated from the reported data. First, the current week's data for a given product reported by companies in that region are summed. (Call this weekly sum, W). Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum, M). Finally, let M, be the sum of the most recent month's data for the product as reported by all companies. Then, the current week's ratio estimate for that product for all companies, W, is given by:

$$W_t = \frac{M_t}{M_s} \cdot W_s$$

This procedure is used directly to estimate total weekly inputs to refineries and production. To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly Imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly Imports is the sum of the smoothed ratio multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for unilcensed products because of coverage differences between the monthly Imports data and Census data.

Explicit Imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

### Response Rates

The response rate as of the day efter the filing deadline is about 80 percent for the EIA-800; 75 percent for the EIA-801; 95 percent for the EIA-802; 80 percent for the EIA-803; and greater than 95 percent for the EIA-804. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

## Appendix B. Interpretation and Derivation of Average Inventory Levels

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, and residual fuel oil in this publication include features to assist in comparing current inventory levels with past inventory levels and with judgments of critical levels. Methods used in developing the average inventory levels and minimum operating levels are described below.

## Average Inventory Levels

The charts displaying inventory levels of total petroleum products (p. 7), crude oil (p. 7), motor gasoline (p. 9) distillate fuel oil (p. 11), and residual fuel oil (p. 13) provide the reader with actual inventory data compared to an "average range" from the most recent 3-year period running from January through December or from July through June. The ranges are updated every six months in March and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors for total petroleum (crude and products), crude oil, distillate fuel oil, and residual fuel oil were derived using monthly data from 1975-1981. For motor gasoline, the seasonal factors were based on monthly data from 1975-1976 and 1978-1981. In 1977, monthly stock levels of motor gasoline stayed at the same high level for the entire year. Since there was virtually no seasonal behavior in motor gasoline stocks that year, 1977 was not the determination of seasonal patterns for motor gasoline stocks.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36-months is calculated adjusting for extreme data points. The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the "average range" is twice the standard deviation. The values of the upper and lower curves are presented in the table below.

## Values of Average Ranges In Inventory Graphs (Millions of Barrels)

	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
						Lower F	lange					
Total Petroleum	1185.5	1143.1	1138.5	1149.3	1163.9	1175,9	1204.2	1219.5	1244.2	1250.6	1252.9	1209.4
Crude Oil	347.0	345.5	354.0	358.2	355.5	354.4	349.2	344.4	344.8	352.7	351.4	341.8
Motor Gasoline	253.8	260.1	256.0	245.1	235.8	230,9	229.0	227.6	229.1	221.1	226.6	237.1
Distillate Fuel Oil	161.6	132.0	120.3	121.5	130.3	145.0	167.5	187.7	206.0	212.5	213.0	191.1
Residual Fuel Oil	71.0	67.9	64.8	66.1	69.4	66.7	70.2	70.3	75.1	79,1	79.5	77.6
						Upper R	ange					
Total Petroleum	1301.2	1258.8	1254,2	1265.0	1279.6	1291.6	1319.9	1335.3	1359.9	1366.3	1368.6	1325.1
Crude Oil	377.8	376.3	384.8	388.9	386.2	385.1	379,9	375.1	375.5	383.5	382.2	372.5
Motor Gasoline	279.7	286.1	282.0	271.0	261.8	256.8	265.0	253.5	255.0	247.1	252.6	263.0
Distillate Fuel Oil	205.5	175.9	164.2	165.4	174.2	188.9	211,4	231,6	249,9	256,4	256,9	235,0
Residual Fuel Oil	88.5	85.4	82,4	83.6	86.9	84.3	87.8	87.8	92.6	96.7	97.0	95.1

### Minimum Operating Levels

The lines labeled "minimum operating inventory" for crude oil, motor gasoline, distillate fuel oil, and residual fuel oil were derived by the National Petroleum Council from a 1978 survey of petroleum refinerles, bulk terminal operators, and petroleum pipelines. The Council also surveyed industry experts. The findings were published in "Petroleum Storage and Transportation Capacities" in pecamber 1979. In that document, minimum operating inventory is described as follows:

Inventory below this level is not available for consumer use because it is required to fill pipelines, tank bottoms and refinery process equipment; facilitate blending to meet the product specifications; prepare for planned maintenance periods; handle unavoidable but anticipated emergencies; and sustain uninterrupted operations. Runouts and shortages would begin to occur if inventory were to fail below this level.

The values were: crude oil - 290 million barrels; motor gasoline - 210 million barrels; distillate fuel oil - 125 million barrels; and  $_{re}$ s idual fuel oil - 60 million barrels.

since the National Petroleum Council did not derive a minimum operating inventory level for total petroleum stocks, the line labeled "observed minimum" is based on the lowest inventory level observed during the same 3-year base period that was used in the derivation of the average inventory levels. For crude oil, motor gasoline, distillate fuel oil, and residual fuel oil, the observed minimum and the minimum operating inventory are quite close. Hence, it is thought that the observed minimum is a reasonable of oxy for the minimum operating inventory.

## Appendix C: Projection of Product Supplied from the November 1982 Short-Term Energy Outlook

The projections of "high" and "low" total petroleum demand, shown in the WPSR as total product supplied, are from the Office of Energy Markets and End Use, Short-Term Energy Outlook, (Outlook) November 1982.

Three forecast cases are presented in the <u>Outlook</u> based on differing assumptions about the world price of crude oil. In case 1, it is assumed that prices decrease to an effective OPEC marker crude price of \$28 per barrel by the end of 1982 and then remain level in 1983. In case 2, imported crude oil prices are stable at the October 1982 level of \$33.44 per barrel through 1983. In case 3, imported crude oil prices rise to \$33.77 per barrel in the fourth quarter of 1982, then rise at 3 times the U.S. inflation rate in 1983. Macroeconomic inputs are based on a forecast from Data Resources, Inc. (DRI CONTROL 102682).

The "high demand" case is formed by adding the case 1 (low price) forecast of total demand to the square root of the sum of the squares of increases in demand resulting from the following changes in key variables: (1) a 5-percent increase in heating degree-days over the base case, (2) a 7-percent increase in cooling degree-days over the base case, (3) an increase in income over the base case that reflects average forecast errors over a 3-year period, (4) a 5.5-percent decrease in new car efficiency from the base case in 1982 and an 11.4-percent decrease from the base level in 1983, and (5) a preliminary data adjustment factor. The "low demand" case is formed by subtracting from the case 3 (high price) forecast the square root of the sum of the squared decreases in demand resulting from decreases from the base case for heating degree-days, cooling degree-days, and income; and a 9.1 percent increase from the base case new car efficiency in 1982 followed by a 17.1-percent increase from the base case in 1983.

For detailed information on the assumptions used in the forecast methodologies, please refer to the published report, Short-Term Energy Outlook, November 1982.

Copies of the report are available from:

National Energy Information Center Room 1F-048, Forrestal Building 1000 Independence Avenue, S.W. Washington, D.C. 20585 Telephone 202-252-8800

### Appendix D: Changes in 1983 Weekly Petroleum Status Report Series

Some data series presented in the 1983 issues of the Weekly Petroleum Status Report (WPSR) are different from 1982 WPSR data series. The differences, which are discussed below, are the result of changes made in the 1983 weekly data collection forms of the Petroleum Supply Reporting System to increase consistency between monthly and weekly published series and to reduce reporter burden. One change has been made in estimation methodology.

#### Changes from Data Forms

In 1983, weekly petroleum supply forms collect data for finished motor gasoline production, stocks, and imports. This change means that the components of 1983 WPSR motor gasoline product supplied estimates are definitionally the same as the components of the monthly product supplied estimates calculated from monthly data. In 1982, weekly forms combined imports of motor gasoline blending components with finished motor gasoline imports in a single category, total motor gasoline imports. In 1983 imports of motor gasoline include finished product only. In 1983, weekly forms include imports of motor gasoline blending components in other oils imports. In the 1983 WPSR publication, the monthly other oils series for 1981 and 1982 (see p. 15) includes imports of motor gasoline blending components. In the first ten months of 1982, imports of motor gasoline blending components averaged 37 thousand barrels a day and ranged between 19 and 50 thousand barrels par day.

Kerosene production and stocks reports are not collected on 1983 weekly forms. Consequently, in 1983, the weekly other oils stocks estimate (pgs. 3 and 6) includes kerosene. Other oils product supplied, which is calculated for the WPSR as the difference between total product supplied and the product supplied estimates of listed products, is larger in 1983 because it includes kerosene product supplied, which can no longer be calculated from weekly data (see p. 16). Kerosene stocks in the first 10 months of 1982 ranged between 8.8 and 10.2 million barrels. The values of kerosene product supplied, averaged 121 thousand barrels per day in the first 10 months of 1982.

#### Change in Methodology

In 1983, reports of crude oil used as fuel on leases are treated as reports of crude oil product supplied, a new product supplied category. Before 1983, crude oil used in this fashion was reported as a use of distillate fuel oil or residual fuel oil and was included in the respective product supplied calculations. Weekly estimates for product supplied made in 1983 do not include estimates for these quantities and are compared in the U.S. Petroleum Balance (p. 3) to recast 1982 data. The monthly series for 1981 and 1982 shown on p. 16 are the quantities originally calculated and published including crude oil used as fuel. In the first 10 months of 1982, the quantities of crude oil used directly in the distillate fuel oil product supplied and residual fuel oil product supplied calculations averaged 11 thousand barrels per day and 50 thousand barrels per day, respectively.

### Appendix E: Calculation of World Oil Prices (page 19)

The weighted average international price of oil, shown in the "Highlights" and on page 19, is an average calculated using specific crude oil prices weighted by the estimated crude oil export volume for each oil-producing country. To develop the table shown on page 19, a list of major oil producing/exporting countries was chosen. For each country, the official selling price of one or more representative crude oils was determined by investigating a number of industry publications (i.e., "Oil Buyers' Guide," "Platt's Oilgram Price Report," "Petroleum Intelligence Weekly," and "Europe Oil Prices") and by contacting oil market analysts

Then, the appropriate crude oil volumes to be used as weighting factors for each country were determined. These volumes are estimates based on a number of sources which provide data on production, consumption, and exports for these countries. Export volumes for a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors. After the export volumes had been determined, simple mathematical weighted averages were calculated to arrive at the "Total OPEC," "Total Non-OPEC," and "Total World" prices

The average United States (FOB) import price is derived by the same basic procedure as the world oil price, that is, taking the representative official crude oil price of a specific crude oil from a particular country and weighting this price by a certain volume of crude oil. In this case, the weighting factors are the volumes of crude oil imported into the U.S. from pertinent countries import volumes from a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors.

Both the import and export volumes are preliminary. Due to their origin, these estimates cannot be fully verified. These volumes are updated monthly, or more frequently when changes in oil market conditions make updating appropriate.

### Glossarv

- e Barrels, 42 gallon barrels,
- Crude Oil. A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate and drips are included but topped crude oil (residual) and other unfinished oils are excluded.
- Crude Oil Inputs The total crude oil put into processing units at refineries.
- Distillate Fuel Oils. Includes No. 1, No. 2, and No. 4 fuel oils, and No. 1, No. 2, and No. 4 diesel fuels.
   These are light fuel oils used primarily for home heating as a diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and for electric power generation.
- Gross inputs. The crude oil, unfinished oils, and natural gas plant liquids put into distillation units.
- Imports. Unless otherwise specified in this report, refers to gross imports. Imports of minor products ("other oils") include aviation gasoline, kerosene, unfinished oils, liquefied petrolaum gases, plant consentate, petrochemical feedstocks, lube oils, waxes, special naphthas, coke, asphalt, blanding components, and other miscellaneous oils.
- Jet Fuel. Includes kerosene-type jet fuel and naphthatype jet fuel. Kerosene-type jet fuel is a kerosene quality product used primarily for commercial turbojet and turboprop aircraft engines. Naphtha-type jet fuel is a fuel in the heavy naphthas range used primarily for military turbojet and turboprop aircraft engines.
- Motor Gasoline. Finished leaded gasoline, finished unleaded gasoline, and blending components in the gasoline range. Production and imports data represent finished leaded gasoline and finished unleaded gasoline. Stocks data consist of the two types of finished gasoline and blending components. Stock change used in the calculation of motor gasoline product supplied is the change in finished motor gasoline stocks. Imports of motor gasoline blending components are contained in other oils imports.
- Operable Capacity. The amount of crude oil distillation capacity that, at the beginning of the month, is in operation; or is not in operation and not under active repair but capable of being placed in operation within 30 days; or is not in operation but under active repair that can be completed in 90 days.
- Product Supplied. A value calculated for specific products which is equal to domestic production plus net imports (imports less exports), less the net increase in primary stocks. Total products supplied is calculated as inputs to refineries, plus estimated refinery gains, plus other hydrocerbon input, plus product imports, less product exports, less the net increase in product stocks. Values shown for "Other Olls" product supplied are the difference between total product supplied and product supplied values for specified products. Other oils product supplied incorporates crude oil product supplied and reclassified product adjustment.
- Refiner Acquisition Cost of Crude Oil. The average price paid by refiners for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. Domestic crude oil is that oil produced in the United States or from the outer continental shelf as defined in 43 USC Section 1131. Imported crude oil is any crude oil which is not domestic oil. The composite is the weighted average price of domestic and imported crude oil. Prices do not include price of unfinished oils or SPR.

- Refinery Capacity Utilization. Ratio of the total amount of crude oil, unfinished oils, and natural gas plant liquids run through crude oil distillation units to the operable capacity of these units. In the period 1979-1982 the refinery capacity utilization for all U.S. refineries ranged between 87 percent and 65 percent. The ratio for an individual refinery may fluctuate much more depending on the type of crude and other raw materials processed, the type of products produced, and the operating conditions of the refinery
- Residual Fuel Olls Includes No. 5 and No. 6 fuel oils which are heavy oils used primarily for electric power generation, for industrial and commercial space heating, as a ship fuel, and for various industrial uses.
- Retail Motor Gasoline Prices. Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). These prices are collected in 85 urban areas selected to represent all urban consumers—about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-service)
- Stocks. For individual products in WPSR, quantities held at refinerles, in pipelines, and at bulk terminals with a capacity over 50 thousand barrels. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded from individual product estimates but included in "Other Oils" estimates and "Total."
- Stock Change (Refined Products), Component of Product Supplied calculation shown on U. S. Petroleum Balance. The product stock change shown on the U.S. Petroleum Belance Sheet for the current 4-week period is calculated in the following way: an average daily stock change is calculated for major refined products (i.e., all actual reported stocks); this stock change is added to an estimate for minor product stock change based on historical monthly data; a dally average stock change for refined product stocks for the 4-week period is then calculated. To calculate minor product stock change, the stock levels shown for other oils in the stock section of the balance sheet are used. These other oils stock levels are derived by. 1) computing an average daily rate of stock change for each month based on monthly data for the past six years; 2) using this daily rate and the minor stock level from the most recent monthly publication to estimate the minor product stock level for the current period.
- Unaccounted for Crude Oil. Term which appears in U.S. Petroleum Balance Sheet. It reconciles the difference between data (or estimates) about supply and data (or estimates) about use. Its value can be positive or negative since it is a balancing term. As it appears in the monthly publications, it reflects the eccuracy of the reported data on crude oil imports, production, stocks, refinery input, losses, exports, and transfers (crude oil burned directly as fuel oil). It reflects the quality of the estimates as well as the accuracy of the reported data. Because the unaccounted for crude oil figure reflects the accuracy of reported and estimated figures, one would expect the figure to be larger in balances using preliminary or estimated data and smaller in balances using the final data. In fact, the published figures confirm this expectation. In the WPSR, four-week averages for the previous year are interpolated from final monthly data, so that the unaccounted-for crude oil value for the previous years is considerably smaller than that for the current period.
- United States. For the purpose of this report, the 50 states and the District of Columbia. Data for the Virgin Islands, Puerto Rico, and other U.S. territories are not included in the U.S. totals.